

The opinion in support of the decision being entered today was *not* written for publication and is *not* binding precedent of the Board.

Paper No. 46

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte KEVIN C. SPENCER and CHRISTINE BOISROBERT

Appeal No. 1997-1059
Application No. 08/305,733

HEARD: October 10, 2000

Before KIMLIN, PAK, and DELMENDO, *Administrative Patent Judges*.
DELMENDO, *Administrative Patent Judge*.

DECISION ON APPEAL

This is a decision on an appeal under 35 U.S.C. § 134 from the examiner's refusal to allow claims 28 through 53 as amended subsequent to the final rejection. These are the only claims remaining in the application.

Claim 53 is illustrative of the claims on appeal and is reproduced below:

53. A method of improving the aroma or flavor or both of coffee, which comprises:

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(a) injecting an effective amount of an atmosphere into the coffee in a closed space or into the closed space containing the coffee, the atmosphere consisting essentially of a noble gas selected from the group consisting of argon, neon, xenon, and krypton; and

(b) saturating said coffee or said closed space containing said coffee with said atmosphere to more than 50% volume of full saturation with said noble gas; and maintaining said saturation throughout said coffee or said closed space containing said coffee and during all the time that the coffee is present in said closed space.

The subject matter on appeal relates to a method for improving the aroma or flavor or both of coffee using the recited noble gases (specification, page, 5). The method comprises injecting an effective amount of the recited noble gas into the coffee or into the closed space containing the coffee, saturating the coffee or the closed space containing the coffee with the noble gas to more than 50% volume of full saturation, and maintaining this "saturation" condition throughout the coffee or the closed space containing the coffee during all the time that the coffee is present in the closed space.

As evidence of unpatentability, the examiner relies upon the following prior art:

The appellants' admitted prior art as described on pages 2 and 3 of the present specification (admitted prior art).

The ground of rejection presented for our review in this appeal is as follows:¹

Claims 28 through 53 stand rejected under 35 U.S.C. § 103 as unpatentable over the admitted prior art.²

Upon careful consideration of the entire record, including all of the appellants' arguments and evidence for patentability, we agree with the examiner that the subject matter of the appealed claims would have been obvious to one of ordinary skill in the art over the admitted prior art within the meaning of 35 U.S.C. § 103.

Accordingly, we affirm for essentially those reasons set forth in the

¹ In the answer (Paper 36, third page), the examiner entered a new ground of rejection as to claims 28-53 under the second paragraph of 35 U.S.C. § 112. However, this rejection was subsequently withdrawn in the supplemental examiner's answer (Paper 43, page 2).

² Regarding the grouping of claims, the appellants submit that claims 28-53 stand or fall "independently of each other, as consistent with the separate arguments for patentability provided hereinbelow" (Paper 35, substitute appeal brief filed April 8, 1996, page 3). We note, however, that the appellants' "separate arguments" (pages 9-13) merely consist of pointing out what is covered by each of claims 28-52 and reciting a conclusory statement that the "aspect of the present invention is neither disclosed nor suggested by the prior art." No analysis is provided, much less an explanation as to why each of claims 28-52 is *separately patentable* from claim 53. Therefore, consistent with the provisions of 37 CFR § 1.192(c)(7) and (c)(8) (1995), we select claim 53 and decide this appeal as to the examiner's ground of rejection on the basis of this claim alone.

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examiner's answer. However, we add the following comments for emphasis.

In proceedings before the U.S. Patent and Trademark Office, claims are interpreted by giving words their broadest reasonable meaning in their ordinary usage, taking into account the written description found in the specification. *In re Morris*, 127 F.3d 1048, 1054, 44 USPQ2d 1023, 1027 (Fed. Cir. 1997); *In re Zletz*, 893 F.2d 319, 321-22, 13 USPQ2d 1320, 1322 (Fed. Cir. 1989).

To determine whether the examiner correctly applied the prior art to the subject matter of appealed claim 53, we must determine the scope and meaning of the following claim language:

. . . (a) injecting an effective amount of an atmosphere into the coffee in a closed space or into the closed space containing the coffee, the atmosphere consisting essentially of a noble gas selected from the group consisting of argon, neon, xenon, and krypton; and
(b) saturating said coffee or said closed space containing said coffee with said atmosphere to more than 50% volume of saturation with said noble gas. . .

The appellants explain in their specification as follows:

It has been unexpectedly discovered that if instead of blanketing the space above a coffee stored or processed in a container or a closed space *with any kind of inert gas*, a gas selected from the group consisting of argon, krypton, xenon and neon or a mixture thereof is sparged into the coffee (around the beans or into the powder made of ground coffee or instant coffee) *and/or injected above*

the coffee in order to saturate or substantially saturate said coffee with said gas or gas mixture, it is possible to substantially improve the flavor and/or the aroma and/or the shelf life of said coffee, particularly when said saturation or substantial saturation is maintained throughout the volume of the closed space and during substantially all the time that said coffee is stored in said container.

The term "substantially saturate" means that it is not necessary to completely and/or constantly saturate the coffee with said gas or gas mixture (i.e., having the maximum amount of gas solubilized in said coffee). Usually, it is considered necessary to saturate said coffee to more than 50% of its (full) saturation level . . . [Emphases added; p. 7.]

Nevertheless, we observe that the above description in the specification does not restrict any of the terms or phrases defining step (a) to carry definitions other than the meanings that would be normally attached to them in their ordinary usage. That is, the term "injecting" as recited in appealed claim 53 is not limited to "sparging" or any other specific method of injection. Thus, giving the terms their broadest reasonable meanings in their ordinary usage, we determine that one skilled in the relevant art would interpret step (a) as encompassing any step in which any of the recited noble gas is simply injected into a closed space (e.g., impermeable packets) containing the coffee and the closed space

containing the coffee is saturated to more than 50% by volume of full saturation.

We now turn to the examiner's rejection. The examiner has taken the position that the subject matter of the appealed claims would have been obvious to one of ordinary skill in the art over the admitted prior art within the meaning of 35 U.S.C. § 103 as follows:

The [prior art] references as set forth on pages 2 and 3 teach saturation (to some degree) of coffee with inert gases. Moreover, the French patent listed on page 3, first paragraph of the specification discloses injecting of a coffee space with argon. Clearly, said coffee would then be saturated to a certain degree with said argon. As for the extent of saturation attained, such is seen as nothing more than an obvious best replacement of the noble [sic, noble] gases suggested by the applied [prior] art and well within the determination of the ordinary worker in the art.³ [Examiner's answer, p. 3.]

The appellants, on the other hand, allege that the applied prior art merely describes "conventional blanketing techniques" (Paper 41, revised reply brief, page 2). According to the appellants, the "claimed saturation methodology," by contrast, provides unexpectedly superior results over the prior art, as evidenced by the declarations

³ In the event of further prosecution, the examiner should consider and apply the underlying prior art references rather than solely the appellants' discussion of these references in the specification.

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under 37 CFR § 1.132 filed August 12, 1994 and April 7, 1995 (substitute appeal brief, pages 5-9). We are not persuaded by the appellants' arguments and evidence.

As we discussed above, one of ordinary skill in the art would interpret appealed claim 53 to encompass *any* injection of the recited noble gas as long as the claimed degree of saturation (i.e., more than 50%) is satisfied. Although the specification appears to distinguish the claimed invention over "blanketing... with *any kind of inert gas* [e.g., nitrogen]" (emphasis added, page 7), it does not limit the invention as defined in appealed claim 53 to exclude blanketing with a *noble gas* (e.g., argon). The appellants' specification clearly states that the prior art teaches the injection of argon to impermeable packets of roasted coffee (page 3). Although the prior art may also teach the use of nitrogen, this does not negate the teaching with respect to argon.

Regarding the degree of saturation, the appellants have stated on this record that "mere blanketing of coffee with argon, for example still leaves about 2-10% by volume of

oxygen in the head space" (substitute appeal brief, page 5). In comparing head space volumes to the corresponding degrees of saturation set forth in the table on page 3 of the April 7, 1995 declaration, we find that a head space volume of oxygen of about 2% corresponds to a degree of saturation of about 75% or greater. It follows then that the prior art method, which the appellants characterize as yielding a head space volume of "about 2-10% by volume of oxygen," would have degrees of saturation that are comparable to those shown for similar head space volumes in the April 7th declaration. Moreover, appealed claim 53 reads on not only saturating the coffee to 50% by volume but also, as an alternative, saturating the closed space containing the coffee to 50% by volume. We therefore do not subscribe to the appellants' allegation that the "claimed saturation methodology" is distinct from "mere physical blanketing" (*id.*).

With respect to the appellants' arguments based on unexpected results, the evidence relied upon is not germane to the appealed claims. Specifically, the August 12, 1994 declaration attempts to show the difference in effect between "blanketing" and "saturation...by means of multiple needle

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injection accompanied by concomitant vibration and mixing" or "by means of sparging" (page 2). However, the appealed claims do not recite "saturation...by means of multiple needle injection accompanied by concomitant vibration and mixing" or "sparging." *In re Self*, 671 F.2d 1344, 1350, 213 USPQ 1, 5 (CCPA 1982). To the contrary, the appealed claims read on "mere physical blanketing" as long as injection is used and the claimed degree of saturation is met.

For the reasons stated above and in the answer, we affirm the examiner's rejection under 35 U.S.C. § 103 of claims 28 through 53 as unpatentable over the admitted prior art.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a).

AFFIRMED

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EDWARD C. KIMLIN)	
Administrative Patent Judge)	
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)	BOARD OF PATENT
CHUNG K. PAK)	APPEALS
Administrative Patent Judge)	AND
)	INTERFERENCES
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Administrative Patent Judge)	

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